ASSIGNMENT 1

Textbook Assignment: "Introduction to Navigation," chapter 1, pages 1-1 through 1-30.

1-1. What are the four primary areas into which navigation is divided?

1. Dead reckoning, plotting, celestial navigation, and electronic navigation
2. Dead reckoning, plotting, celestial navigation, and radio navigation
3. Piloting, dead reckoning, celestial navigation, and radio navigation
4. Dead reckoning, plotting, celestial navigation, and radio navigation

1-2. How is the term "piloting" defined?

1. Navigating with a harbor pilot aboard
2. Navigating by landmarks and radar only
3. The movement of a vessel with continuous reference to landmarks, aids to navigation, depth sounding, and radio navigation
4. The movement of a vessel with continuous reference to dead reckoning and visual landmarks

1-3. How is the term "dead reckoning" defined?

1. Projecting the ship's intended course and speed to an estimated point
2. Projecting the ship's intended course and speed from a known point
3. Projecting the ship's actual course and speed from a known point
4. Projecting the ship's actual course and speed to an estimated point

1-4. Dead reckoning does not consider the effects of wind or current.

1. True
2. False

1-5. Celestial navigation is defined as the method of obtaining the ship's position by observing the Sun, Moon, stars, and planets.

1. True
2. False

1-6. To what accuracy may an experienced QM obtain a celestial fix in relation to the ship's position?

1. 1/10 mi
2. 1/4 mi
3. 1/2 mi
4. 1 mi

1-7. Celestial navigation is accomplished by measuring the height of a celestial body above which of the following points?

1. The horizontal plane
2. The celestial horizon
3. The celestial plane
4. The horizon

1-8. Radio navigation uses radar pulses to determine a ship's position.

1. True
2. False

1-9. Radio navigation is sometimes referred to as what type of navigation?

1. Ground wave
2. Inertial
3. Radio direction
4. Electronic

1-10. The most basic and important problem facing the navigator is determining which of the following values?

1. Position
2. Direction
3. Distance
4. Speed

1-11. The term "position" refers to a known point on Earth.

1. True
2. False

1-12. On charts, direction is measured in polar units using the angular coordinate system.

1. True
2. False

1-13. The polar coordinate system is based on which of the following position(s)?

1. North Pole only
2. South Pole only
3. True north
4. North and South Pole

1-14. How many feet are in a nautical mile?

1. 6,071.6
2. 6,076.1
3. 6,671.0
4. 6,760.6

1-15. Navigation is based on what type of time?

1. Greenwich mean time
2. 12-hour clock
3. 24-hour clock
4. 48-hour clock

1-16. Which of the following lines is/are considered to be a great circle?

1. The equator
2. A plane passing through the center of Earth
3. Both 1 and 2 above

1-17. Which of the following lines is NOT a great circle?

1. Greenwich Meridian
2. Parallel
3. Equator
4. International Date Line

1-18. On navigation charts, what are parallels called?

1. Equator
2. Latitude
3. Longitude
4. Great circle

1-19. Lines of latitude are parallel to which of the following reference points?

1. Equator
2. Greenwich Meridian
3. International Date Line
4. North Pole and South Pole

1-20 What is the maximum number of degrees of latitude?

1. 45
2. 90
3. 180
4. 360

1-21 Latitude is measured north or south of the equator in which of the following units?

1. Degrees
2. Minutes
3. Seconds
4. Each of the above

1-22. Why is the Greenwich Meridian called the Prime Meridian?

1. It divides the Earth in half
2. It meets the equator at 45O angles
3. It is the starting point for all measurements
4. It is crossed at its midpoint by the equator

1-23. How is longitude measured?

1. East or west throughout 180°
2. East or west throughout 360°
3. From the Prime Meridian 180° eastward only
4. From the Prime Meridian 360° westward only

1-24. A nautical chart is like a road map for the world's oceans and inland waterways.

1. True
2. False

1-25. Which of the following data can be found on a nautical chart?

1. Parallels
2. Meridians
3. Aids to navigation
4. All of the above

1-26. In what vicinity is the distortion greatest on a Mercator Projection Chart?

1. 180th meridian
2. Greenwich Meridian
3. At the poles
4. At the Equator

1-27. How do parallels appear on a Mercator Projection Chart?

1. As curved lines that bend toward the top of the chart
2. As parallel lines that run from top to bottom
3. As parallel lines that run from left to right
4. As vertical lines that are parallel and equally spaced

1-28. One of the advantages of a Mercator Projection Chart is that rhumb lines appear as what type of lines?

1. Straight
2. Waved
3. Curved

1-29. Which of the following is an advantage of a Gnomonic Projection Chart?

1. Plots great circles as straight lines
2. Shows the shortest distance between two points
3. Can be used to plan long ocean voyages
4. Each of the above

1-30. Which of the following data would NOT appear on a navigation chart?

1. Soundings and buoys
2. Lights and obstructions
3. Distance scales and fathom curves
4. Tides and currents

IN ANSWERING QUESTIONS 1-31 THROUGH 1-35, SELECT FROM COLUMN B THE SCALE THAT IS USED BY THE CHART IN COLUMN A. RESPONSES MAY BE USED MORE THAN ONCE.

A. CHART	B. SCALE
1-31. Coastal	1. 1:50,000
1-32. General	2. 1:150,000
1-33. Harbor	3. 1:6,000,000
1-34. Approach	
1-35. Sailing	

1-36. Which of the following statements best describes a chart scale?

1. The larger the scale, the larger the area
2. The smaller the scale, the smaller the area
3. The larger the scale, the smaller the area
4. The smaller the scale, the larger the area

1-37. Which of the following scale ratios would show the greatest detail?

1. 1 to 5,000,000
2. 1 to 500,000
3. 1 to 50,000
4. 1 to 5,000

1-38. Nautical charts are published by DMAHTC and what other agency?

1. National Ocean Office
2. National Ocean Program
3. National Ocean Service
4. National Ocean Bureau

1-39. On a small scale chart, how is each degree usually broken down?

1. Into whole degrees only
2. Into minutes only
3. Into minutes and seconds only
4. Into degrees, minutes, and seconds

1-40. On the Earth's surface, 1 deqree of latitude is equivalent to how many nautical miles?

1. 1.0
2. 10.0
3. 0.1
4. 60.0

1-41 If you are located at latitude 36°30.0'N, longitude 75°30.0'W, how many nautical miles are you from the equator?

1. 3,360
2. 2,190
3. 3,400
4. 4,530

1-42 What is the principal use of dividers in navigation?

1. To divide a line into equal parts
2. To transfer distance on a chart
3. To draw distance circles
4. To plot the distance of a known object

1-43 On the Mercator Projection, how do meridians appear?

1. As parallel lines whose spacing increases as longitude increases
2. As curved lines that bend toward the point where the projection was made
3. As horizontal lines that are parallel and equally spaced
4. As straight lines that are parallel and equally spaced

1-44. On a Mercator Projection, how does a rhumb line appear?

1. As a curved line that is a great circle track
2. As a curved line that is the shortest distance between two points
3. As a straight line that is parallel to all meridians
4. As a straight line that crosses every meridian at the same angle

1-45. A rhumb line always represents the shortest distance between two points.

1. True
2. False

1-46. Which of the following position reports is properly expressed?

1. Lat. 35°16'43"N
   Long. 75°40'36"S
2. Lat. 35°16'43"S
   Long. 75°40'36"W
3. Lat. 75°40'36"E
   Long. 35°16'43"W
4. Lat. 75°40'36"S
   Long. 35°16'43"N

1-47. All charts used by the Navy are issued by which of the following agencies?

1. British Admiralty
2. Defense Mapping Agency Hydrographic/Topographic Center
3. National Ocean Service

1-48. What part of the DMA Catalog of Maps, Charts, and Related Products contains the Semiannual Bulletin Digest for hydrographic products?

1. Part 1
2. Part 2
3. Part 3
4. Part 4

1-49. Which of the following volumes of the DMA catalog contains miscellaneous charts and publications regarding hydrographic products?

1. VI
2. VIII
3. X
4. IV

1-50 Which of the following publications must be maintained so that you may have current information on all available hydrographic products?

1. All semiannual bulletin digests and all monthly bulletins
2. A semiannual bulletin digest and the latest monthly bulletin
3. The latest semiannual bulletin digest and the latest monthly bulletin
4. The latest semiannual bulletin digest and all monthly bulletins

1-51. Information appearing for the first time in a monthly bulletin is marked in what way?

1. With an asterisk
2. Printed in bold type
3. Underlined
4. Printed in italics

1-52. What hydrographic bulletin provides a complete summary of all available classified charts and publications?

1. Annual
2. Semiannual
3. Quarterly
4. Monthly

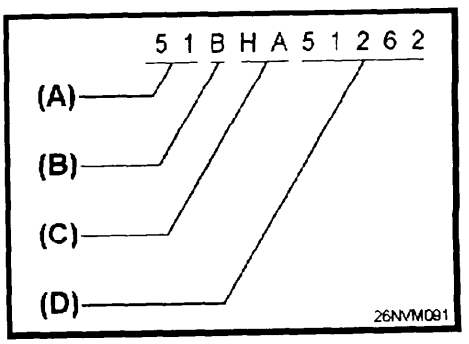

Figure 1-A

IN ANSWERING QUESTIONS 1-53 THROUGH 1-56, REFER TO THE DMA STOCK NUMBER SHOWN IN FIGURE 1-A.

1-53. What is the basic nautical chart number?

1. A
2. B
3. C
4. D

1-54. What is the chart classification?

1. A
2. B
3. C
4. D

1-55 What is the geographic subregion?

1. A
2. B
3. C
4. D

1-56 What is the portfolio assignment?

1. A
2. B
3. C
4. D

1-57. The alphanumeric series designator is listed in the lower left hand corner of many charts.

1. True
2. False

1-58. Which of the following letters is used if a chart is not included in a portfolio?

1. W
2. X
3. Y
4. Z

1-59. What organization assigns chart numbers to charts used by the Navy?

1. The country producing the-chart
2. The country the chart covers
3. The Defense Mapping Agency
4. The Coast Guard

1-60. What does the DMA chart number itself indicate?

1. Scale
2. Geographical area covered
3. Printing sequence
4. Importance to navigation

1-61 What scale, if any, is applied to charts with one-digit numbers?

1. Various
2. 1:2,000,000 and smaller
3. 1:9,000,000 and larger
4. None

1-62 Charts that cover major portions of the nine ocean basins have a total of how many digits?

1. Five
2. Two
3. Three
4. Four

1-63 In the chart numbering system, the five-digit chart number indicates a scale of what size?

1. Smaller than 1:2,000,000
2. Larger than 1:2,000,000
3. 1:9,000,000 and smaller
4. Between 1:2,000,000 and 1:9,000,000

1-64, Which of the following chart numbers denotes a primary nautical chart?

1. 8
2. 15
3. 121
4. 12634

1-65. The last three digits of a five-digit chart number identifies which of the following properties?

1. Scale
2. Numerical
3. Geographic order
4. Importance to the portfolio

1-66. A Notice to Mariners correction record must be kept on which of the following navigation data?

1. Portfolios
2. Charts only
3. Publications only
4. All charts and publications

1-67 How often is the periodical Notice to Mariners published?

1. Daily
2. Weekly
3. Monthly
4. Quarterly

1-68 How often is the periodical Classified Notice to Mariners published?

1. Weekly
2. Monthly
3. Quarterly
4. As needed

1-69. In section I of the Notice to Mariners, chart numbers are listed in what order?

1. Numerical
2. Alphabetical
3. Geographical
4. By subregions

1-70. Section I of the Notice to Mariners lists a correction for chart 12367. Should corrections be made to any other charts? If so, which ones?

1. Yes; all charts that cover the same area
2. Yes; all charts that cover the same area but of a larger scale
3. Yes; all charts that cover the same area but of a smaller scale
4. No

1-71. In section I of the Notice to Mariners, how is a correction based on original U.S. source information indicated?

1. A star
2. Italics
3. Underlined
4. An asterisk

1-72. What symbol or letter preceding a correction in the Notice to Mariners indicates a temporary chart correction?

1. R
2. T
3. Star
4. Asterisk

1-73. Which of the following indicators is NOT used in chart corrections found in the Notice to Mariners?

1. T
2. P
3. Star
4. Asterisk

1-74. How are all courses and bearings given in the Notice to Mariners shown?

1. Clockwise from 000° true
2. Clockwise from 000° magnetic
3. Counterclockwise from 000° true
4. Counterclockwise from 000° magnetic

1-75. What agency publishes the Local Notice to Mariners?

1. DMAHTC
2. U.S. Coast Guard
3. National Oceanographic Service
4. Army Corps of Engineers